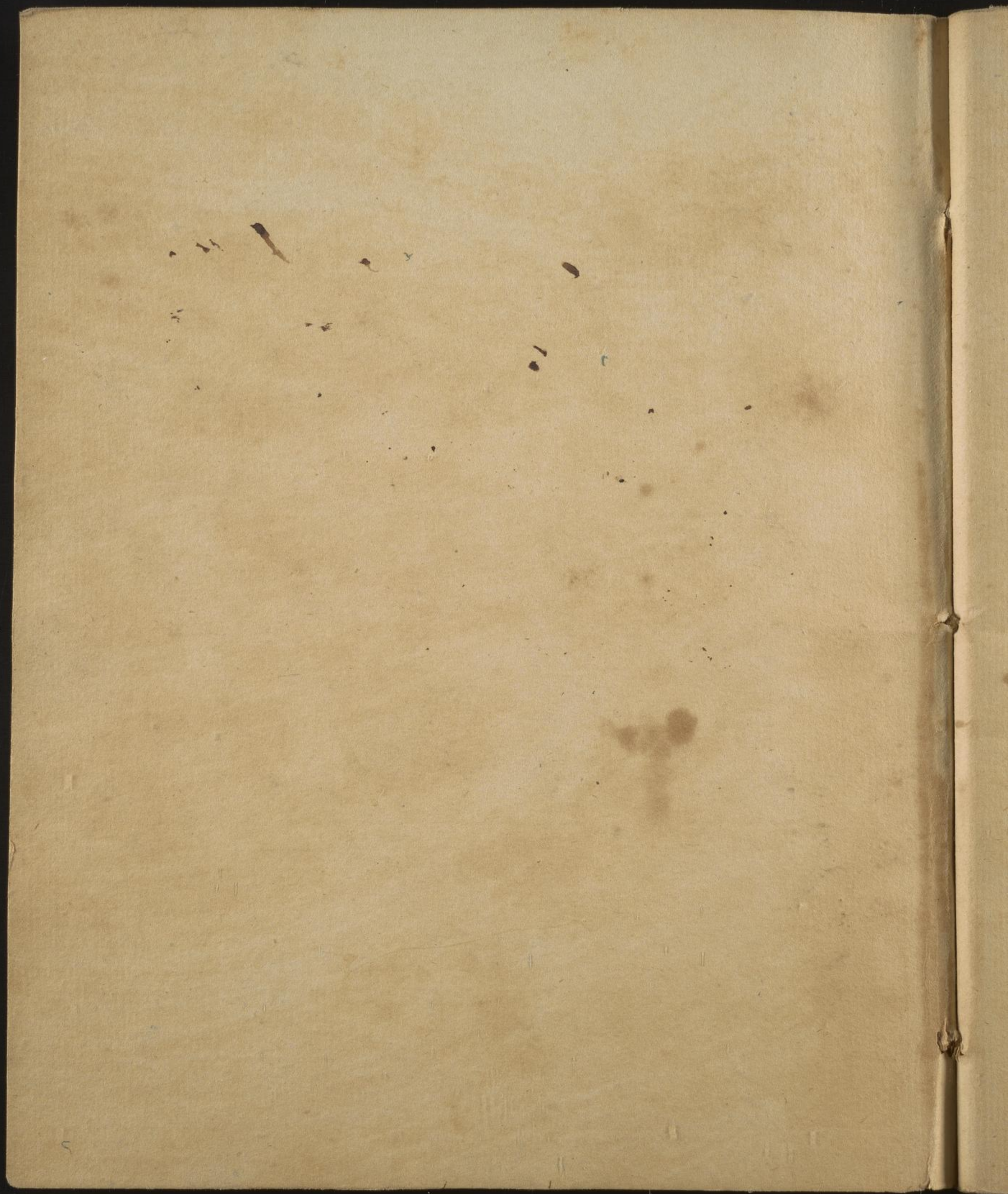


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# Lectures on Pathology.

next year 1808

The Order - After impregnation  
relating effects as all-  
-tions of Air being ~~sensitization~~  
situation - ~~injection~~ medium of life  
then ~~Change of D<sup>o</sup> etc~~ Change of  
(this crossed) & Afterwards Change of  
situation in 12:4. — then Epidemics  
Afterwards - Round - moon - Thunder



laborer or are in action than where  
they sit still, or are unemployed.

∨ This singular source of the origin  
of fever was first pointed out by Dr  
Blane. He tells us that upon mixing  
the crews of ships, or bringing recruits  
into the fleet, a fever of the typhus  
kind frequently followed. I have ascribed  
the <sup>great</sup> prevalence of this fever in the  
American Army in the year 1776  
in part to this cause. The army was  
composed for the first time of citizens  
<sup>drawn</sup> from nearly every State in the Union.  
[The influenza in 1793 from French  
people from Domingo]



~~morbid when present~~ 91

3 Low rapid vegetable diet.

4 putrid animal diet.

5 A scanty quantity of sound Aliment.

6 Depression of Mind

7 The mixture of strangers with each other!  
From the enumeration of all these

causes of fever from human mismanagement,  
it is easy to account for the greater  
frequency of this fever in the time

of War than in the time of peace, for  
war brings exposure to the want of

cleanliness to confinement in jails -  
in prison ships - or besieged towns - also

to rapid - putrid & scanty Aliment

& lastly it brings a great many strangers  
& lastly to grief of mind which is the  
together. -

influence of confinement in producing

human mismanagement, that soldiers

acquire contract fevers from that



~ 80 surgeons died in two years of  
the campaign in the Austrian  
Army in 1791. 2 -



canoe only by sleeping in their tents  
 during a campaign. The same and  
 pestilence have often followed the foot-  
 steps of war. The hearse described  
 them both as crouching, <sup>like a pair of hounds</sup> for camp by  
 - mount as the feet of Caesar when ~~the~~ <sup>he</sup>  
 girded ~~fast~~ on his sword. - The connection  
 between them is a very natural  
 one - for while war begets a scantiness  
 of provision by drawing men  
 from agriculture - pestilence follows  
 the operation of all the <sup>other</sup> causes of it  
 which have been mentioned. ✓

Can a human body infect itself  
 from an effluvia engendered within  
 itself? I answer in the affirmative,  
 and am fully satisfied that the



~~V Fever is propagated, by it is from  
this excretion, and by not a  
secreted matter as in the measles  
of all pop.~~

V 1 They are derived chiefly from  
vitiated perspirable matter. ~~It is possible~~ <sup>They</sup>  
the other excretions in a putrid state will  
certainly produce Disease, but they are as much  
as frequent source of Disease <sup>it</sup> than the per-  
spiration.

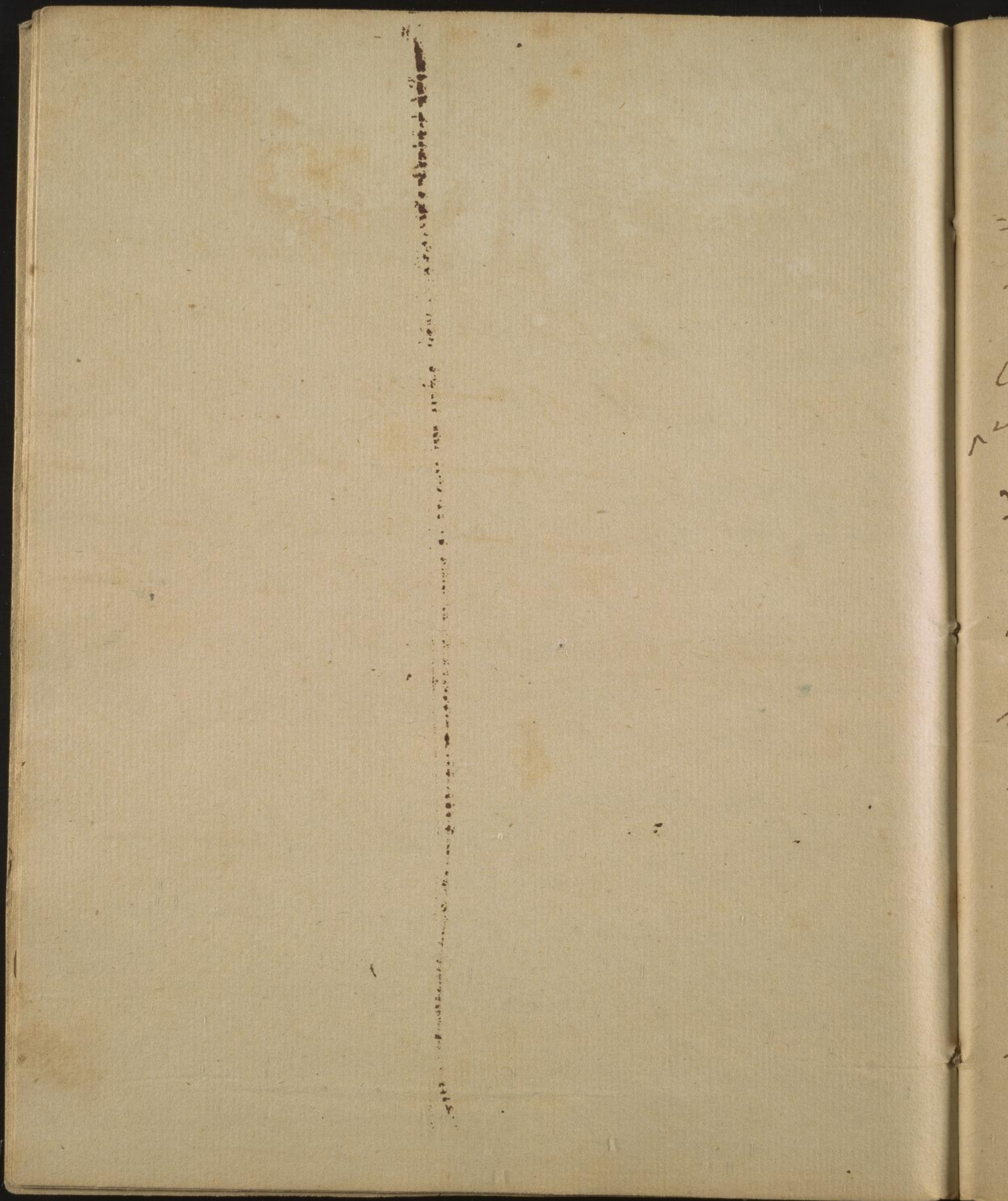


fluids stagnating from all the <sup>leaves</sup> that have been concentrated in the extreme vessels which terminate in the skin may be irritated, as to become a direct stimulus to the system and thus produce a true typhus or jail fever. Where this

The following circumstances deserve to be attended to in the history of <sup>human</sup> or idiopathic exhalations. V

1 They are engendered more frequently, and are more active in winter than in summer. Of this I saw many instances in our army & in military hospitals during the late war. We seldom saw a typhus in warm weather when it was safe, and







agreeable to keep the doors & windows  
 of our hospitals open. I well remember  
 but that a most malignant typhus  
 broke out in the house of employment:  
 [which was then a military hospital]  
 in this city in the month of ~~an~~ April in the  
 year 1777. ~~As soon as~~ In the month  
 of May we opened ~~our~~ all the doors and  
 windows of the hospital - and the  
 fever nearly disappeared. - About  
 the 20<sup>th</sup> of the month an unusual  
 week  
 much of cool weather obliged us to  
 shut our doors & windows - the  
 consequence of <sup>it</sup> was, the fever re-  
 -vived with fresh malignity, and  
 carried off several persons among  
 whom were <sup>two</sup> senior & junior surgeons,



will



| Dr Holmes & Dr Young | and one mate  
Mrs Thompson - who belonged to the hos-  
pital. It affected at the same time  
[Dr Rogers, then a mate - myself - &]  
almost every other Officer of  $\frac{1}{2}$  hospital.  
Dr Blane in his essay on the means  
of preventing naval diseases mentions a  
fact ~~of a similar~~ <sup>which</sup> occurs in the one of  
have related. He says that the ~~fact~~ <sup>Ship</sup>  
never always disappeared in Voyages  
to the from England to the West Indies,  
the nearer they approached the warm  
latitudes - and increased in Voyages  
back again - the nearer they ap-  
proached the <sup>cold &</sup> moist shores of Great  
Britain. - He accounts for it very  
justly by ascribing it to the disposition



✓ This disposition of cold air to  
concentrate, and thereby to render more  
active human miasmata will  
enable us to account for a singular  
fact in the history of the yellow fever.

This fever is derived wholly from  
<sup>of decaying or dead bodies, seldom</sup>  
~~the~~ miasmata, and is ~~never~~ <sup>nor in</sup>  
~~never~~ contagious in the West Indies, But

our country in warm weather. (A) ~~Cases of contagion~~  
when conveyed in any way to our  
continent, ~~it~~ <sup>sometimes most commonly</sup> spreads with like a  
plague by means of contagion. [The

death of a young man who died in  
Barbados were sent to his friends in  
this city, and <sup>once</sup> became the means of  
introducing the disorder among our  
citizens. It is remarkable in these

cases that it generally prevailed in  
<sup>(a) Cases of contagion</sup> ~~contagion~~ and then occurs in  
~~contagion~~ <sup>as it is rarely</sup>

~~contagious~~ till Sep & Octob<sup>r</sup> when doors  
windows are ~~kept~~ shut to keep out <sup>air</sup>



which Soldiers & Sailors have to be upon  
deck in warm latitudes, which  
prevents the generation of  
~~excess~~ <sup>when formed</sup> miasmata, as ~~far~~ or ~~exposed~~  
them, to be carried off by fresh air

as fast as they are generated. ~~It~~ <sup>Dr</sup>  
Winter was ~~resided~~ <sup>resided</sup> two years in Jamaica & says he  
never saw a case of ~~fever~~ <sup>fever</sup> during that time ~~at~~  
a ~~3~~ <sup>3</sup> ~~circumstances~~ <sup>circumstances</sup> in the history of

the human miasmata which is worthy  
of our attention is, that it adheres to  
cloathing of all kinds - more especially  
to woollen and cotton, - hence it is often  
preserved so as to produce a disease  
for days, - weeks - and even months  
in apparel - and curtains. - I once  
knew a Sticking which has been worn  
by a man in a typhoid country  
that ~~disorder~~ <sup>disorder</sup> ~~lost~~  
it to one of his fellow servants  
who tried it ~~around~~  
~~several weeks~~ <sup>after</sup> his death several  
days after it had been thrown aside,



Disease in these cases is communicable? by  
~~but~~ The ~~Contagion~~ here is from the excretions  
of the patients such as their breath, per-  
spiration, & stagnating urine, or feces.  
It is a new form of putrid animal  
exhalation from dead matters, and differs  
totally from the secreted contagions of  
the small pox & measles. ~~It perhaps~~  
~~the jail fever.~~ Happily contagion from excretion  
may be prevented. DeClair's book. Letters from

✓ It is ~~it~~ was thus communicated by the  
prisoners ~~prisoners~~ who had it not at the old  
Bailey in London in 1750 to General  
of the bridges by <sup>filthy &</sup> infected cloathes.



I have heard of a convict in Maryland  
who came over to America in an in-  
fected ship, who nearly destroyed a  
whole family by <sup>taking</sup> ~~putting~~ wearing  
a coat or waistcoat out of his chest,  
and wearing it about the house three  
months after his <sup>arrival & was</sup> ~~being admitted~~  
infection with the family. — But this

is not all, — Dr. Man writes me that a  
adhere to wood — and <sup>perhaps</sup> ~~went to~~ <sup>stone</sup>  
and brick walls. There was an instance  
of a wooden hospital at the Yellow  
Springs which <sup>retained these micro-organisms</sup> ~~infected a number of~~  
~~for with this fever~~ <sup>after it had</sup>  
~~been given months~~ <sup>so as to infect a num-</sup>  
~~ber of soldiers~~ <sup>ber</sup> with a typhus, who  
were admitted into it during the



x Dr Willan mentions an instance in <sup>ch</sup> w: these miasm<sup>a</sup>  
adhered to a frame houses in wood; Close Clerkenwell  
for several years in London. 1825.6. miasma to  
Dr Clark confirms this observation. ~~matters~~

v It is remarkable that the ~~confusion~~  
which produces the typhus fever never ad-  
heres to white washed walls, or to ~~and~~  
~~walls~~, or to a ground ~~well~~ floor. The former  
fact is established by the observations of  
Mr Howard - and the latter was first  
pointed out by Fontaine in his  
revisions, who ~~directs~~ <sup>forbids</sup> the <sup>ground</sup> floor, of all  
~~military~~ hospitals to be covered with  
wood, or any other matter. Dr Filston  
followed this advice with great success  
in the construction of his hut hospitals  
near Mornistown in the year 1780. -

<sup>by</sup>  
If ~~the~~ Persons are capable of infecting them-  
selves - that is - perspiration when long  
retained, and confined, especially if it be



late war. These facts <sup>98</sup> ~~Sept.~~ will help  
to impress upon your minds the  
necessity of changing the position &  
removing the curtains of patients  
in a typhus fever - also of placing  
their beds in the middle of a room.  
It is no new fact that the beds of a dis-  
ease adhere to a wall. The density of the  
fumes was at one time <sup>of</sup> so malignant  
a nature as to make it necessary to  
~~pull down~~ <sup>destroy even</sup> the house <sup>of a leper</sup> to prevent the  
spreading of the infection of that dis-  
ease.

6 In the operation of human mind -  
it is important of  
-mata, there are ~~two things~~ <sup>which</sup> ~~which~~ <sup>deceive</sup>  
our notice; <sup>that</sup> they act chiefly upon  
persons who are predisposed by  
previous debility, and seldom



combined with all the <sup>or bad</sup> scanty diet - & depression of mind, will produce this disease, without any intercourse with persons infected with it.

5 Persons highly charged with ~~the~~ retained and vitiated perspiration sometimes ~~off~~ infect other people, without being affected themselves. It was communicated by some criminals brot from prison in their cloaths to the Old Bailey to several of the Judges in the year 1750 who ~~with~~ died with it. Some of the criminals ~~had~~ were indisposed from it. turn back



upon persons in whom a vigor is  
preserved in the body or mind by  
one or more active stimuluses.

Convalescents ~~with~~ were most ex-  
posed to the infection of the hospital  
during the late war, ~~It~~ <sup>by</sup> has been  
remarked further, that pregnant wo-  
men - and persons who labour under  
painful abscesses or sores <sup>in these hospitals</sup> frequently  
escape the fever altogether. The stimu-  
lus of distraction in the first case, &  
of pain in the two last, protect the  
system from infection. It is equally  
remarkable that after parturition,  
the same women, and after the  
opening of an abscess, or the am-  
putation of the limb, the same



~~The~~ <sup>violence</sup> ~~operation~~ & certainty with w<sup>ch</sup>  
these miasmata operate on the system,  
are greatly influenced by its being more  
or less predisposed by weakness by the  
passions of grief & fear. — It is because  
the system is always predisposed to this fever by great  
debility that V.S. is so seldom required to cure it. <sup>more</sup>  
I have observed only of the mias:  
among the rich than poor. <sup>in our army</sup> they require V.S. —  
miasmata which are emitted from  
human morbid ~~living~~ bodies. — but many ani-  
mals under the circumstances of  
famine live on bad diet, & confine-  
ment emit miasmata which pro-  
duce fever, an instance of this kind  
is mentioned by Dr. Hordyge, <sup>they were sent to New York in 1778 for</sup>  
~~the use of the Army.~~  
~~These~~ <sup>these</sup> proved ~~that~~ <sup>that</sup> ~~canine~~  
madness is nothing but a malignant  
fever produced in the rabid animal  
by the retention of its morbid excretions.



men often perish with the same fever. — V

~~I remark further - that a fever from the miasmata when generated in a hot country~~

~~What <sup>are</sup> the diseases, <sup>or rather</sup> what is the nature of those fevers which appear to depend on human miasmata?~~

~~To this answer - <sup>They produce</sup> The typhus miasmata~~

~~commonly called the slow nervous fever. <sup>all</sup> This is the offspring of <sup>last</sup> ~~the~~ causes of fever ~~from~~ miasmata.~~

~~It is preceded by great debility, and comes on gradually - frequently without chills. - It affects the brain~~

~~and nervous system in a great degree with stupor - tremors - subsultus &c.~~

~~The arterial system is affected with~~



V Sometimes these human miasmata  
produce a fever w<sup>th</sup> assumes the malignant form  
of the plague. ~~1 = 190 on~~ ~~Sometimes~~  
~~to~~ In this form it ~~often~~ appears in  
jails, crowded hospitals & prison  
ships. I <sup>was</sup> formerly so much misled  
by Authors as to believe the  
plague of Constantinople was derived  
exclusively from this cause, but  
I am now satisfied this is not  
the case, and that the fever that  
occasionally desolates that city, and  
other cities of the East is derived from  
the same kind of exhalations which  
produce our yellow fever. It arises  
some peculiar symptoms from being  
the climate, <sup>& filthy dresses,</sup> ~~as diet,~~ ~~of the inhabitants,~~  
<sup>conduct</sup>  
so probably from the filth & confu-  
sions of the inhabitants of those



They in this fever with  
1 It affects the blood vessels ~~with fever~~  
producing chills & shivers  
a feeble degree of action. The pulse is seldom  
intermittent & is  
so much excited as to indicate V.S. - It is some-  
times not quicker than natural.

2 It affects the nervous system, and  
muscles with stupor & ~~convulsions~~ tremors,  
and the brain with a moderate degree  
of delirium.

3 They now & then induce swellings in  
the lymphatic glands. I have seen them  
in the groins in the hospital ~~fever~~ fever.  
V

~~How to name this fever~~ ~~The 2 species of fever from human~~  
~~production of the malignant form of~~  
~~virus mata is the plague~~ ~~These~~ That this disease  
is engendered by all or part of the cir-  
cumstances which produce our com-  
mon ~~fever~~ ~~tail fever~~ ~~mon~~ ~~typhus~~ I am now satisfied from  
the various new lights which have



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occasionally

Other cities of the East is derived from  
the same kind of exhalations which

produce our yellow fever. It arises  
some peculiar symptoms from living  
the climate, <sup>& filthy dresses,</sup> ~~the climate, the diet, of the inhabitants,~~  
<sup>conduct</sup>

so possibly from the filth & confus-  
-ments of the inhabitants of those



~~and quickness~~ of ~~action~~ <sup>irregular</sup>  
 Sometimes the pulse is natural as to ~~slowness~~  
 The Stomach is seldom affected

the sickness or vomiting, and the  
 generally. The blood sel:  
 is often regular.

Discover any marks of a septic  
 and the bile is no change

appears in the bile. — In the most  
 malignant degrees of this fever I have  
 buboes, and Ulcers in the throat, &  
 occasionally Abscesses in different parts of  
 body, but these symptoms of putre-

cent diathesis are very uncommon.

~~These are the signs of~~ <sup>these</sup>  
~~The signs of a fever of the malignant form of~~  
~~prodromata in the Plague.~~ That this disease  
 arises ~~materially~~ <sup>by</sup>

is engendered by all or part of the cir-

cumstances which produce our com-

mon ~~fever~~ <sup>fever</sup> I am now satisfied from

the various new lights which have



✓ And from persons visiting the Island of  
St Kilda. Perspiration & breath<sup>to</sup> influenced by diet  
as to become an irritant to the temporary inhabitants  
of y<sup>e</sup> Island.

+ Dr Makensie who resided 8 years at Constantinople is decidedly of this opinion. Dr Hodge of London has adopted it.

~~countries, it is now & then pro-~~  
~~-pagated by contagion from ex-~~  
~~-cretions from the Skin, but rarely~~  
~~where cure is taken as in hospital.~~ Differs book. our  
Sometimes they produce dysentery.  
in Prisons

This has often appeared in garri-  
sons that were besieged, and on board  
of crowded ships. - also intermittents  
They sometimes produce the disease  
called Scurvy of which I hope to  
furnish proofs hereafter. ~~as to~~  
~~probably sometimes produce the Influenza.~~  
~~go to p 108~~ It may be a low degree of  
as in Belleroophon. ~~with fever go p 108 V.~~  
~~see Bellamy med J. vol 4 They die so in Frigate Philadelphia~~



thrown upon ~~this~~ the plague &  
 Mr Howard & other philosophical travellers.

[Dr Ross informed me that a warm and  
 moist spring never fails to produce <sup>the</sup> ~~a~~  
 plague in the Constantinople. It is  
 an exciting cause added to a predisposition  
 produced by confinement - the want of  
 cleanliness - penury of diet - and that  
 general depression of mind which ac-  
 -companies a state of slavery.] It is

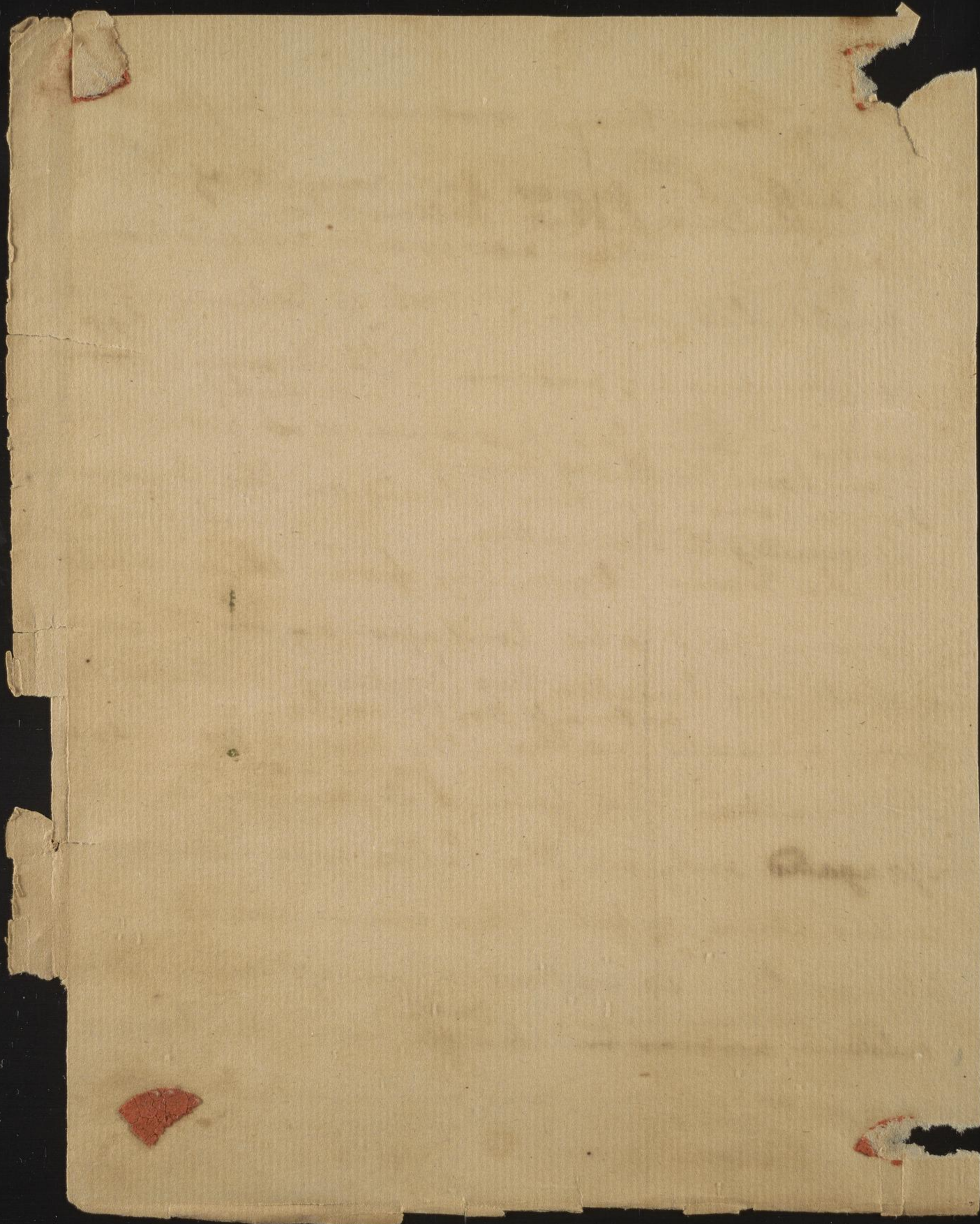
remarkable that the plague <sup>rages in some</sup> ~~ceases in all~~  
 Constantinople in the spring &  
~~the approach~~ <sup>permanes</sup> - & in Egypt in  
 the winter - owing to the humidity of the

air <sup>which accompanies</sup> ~~in the former~~ those two different  
 seasons in each of those countries - for  
 humidity appears to be necessary to ~~be~~  
~~complete~~ its generation. The contagion



if they sometimes produce an Influenza  
or Catarrh. ~~As to~~ An account of this dis-  
-ease from Idiosyncratic exhalations is  
published in the 4<sup>th</sup> vol: of Bellamy's medi-  
-cal Journal, and in D<sup>r</sup> ~~Champany~~ <sup>Cutler</sup> ~~Thesis~~  
narrates a similar instance of it from the  
on board the Philad Frigate  
same cause in his Thesis on the Dysentery.  
It proceeds the Dysentery, <sup>a Catarrh from the</sup>  
of the Liver, & Dysentery <sup>same cause in gonorrhea</sup> from these exha-  
-tions is said to be contagious. - There are  
I shall say hereafter, two species of contagion -  
from a secreted matter - <sup>as small pox & measles -</sup> the second from exo-  
-ted matter. The fever & Dysentery, <sup>from idiosyncrasy: ex-</sup> are pro-  
-pagated only in the latter way. They never  
extend above 10 feet - They never pervade the  
atmosphere so as produce an epidemic & they  
they produce disease <sup>only</sup> chiefly in jails - hospitals  
~~where they appear~~ in camps & prisons, and in small & filthy  
dwellings of poor people. — go to page 108. 1. &







✓ Ulloa relates a fact in his travels  
thru the Island of Cuba which accords  
with the one I have mentioned from  
Volney. He tells us that when ever the  
Spaniards get a little wet in a light  
shower of rain - they plunge themselves  
all over in water, or remain in the  
rain, till they are wet to the skin. The  
off rain here probably destroys by  
dilution the miasmata which are  
rendered active by the moderate concentration  
of a little <sup>water into</sup> ~~dense~~ moisture only.

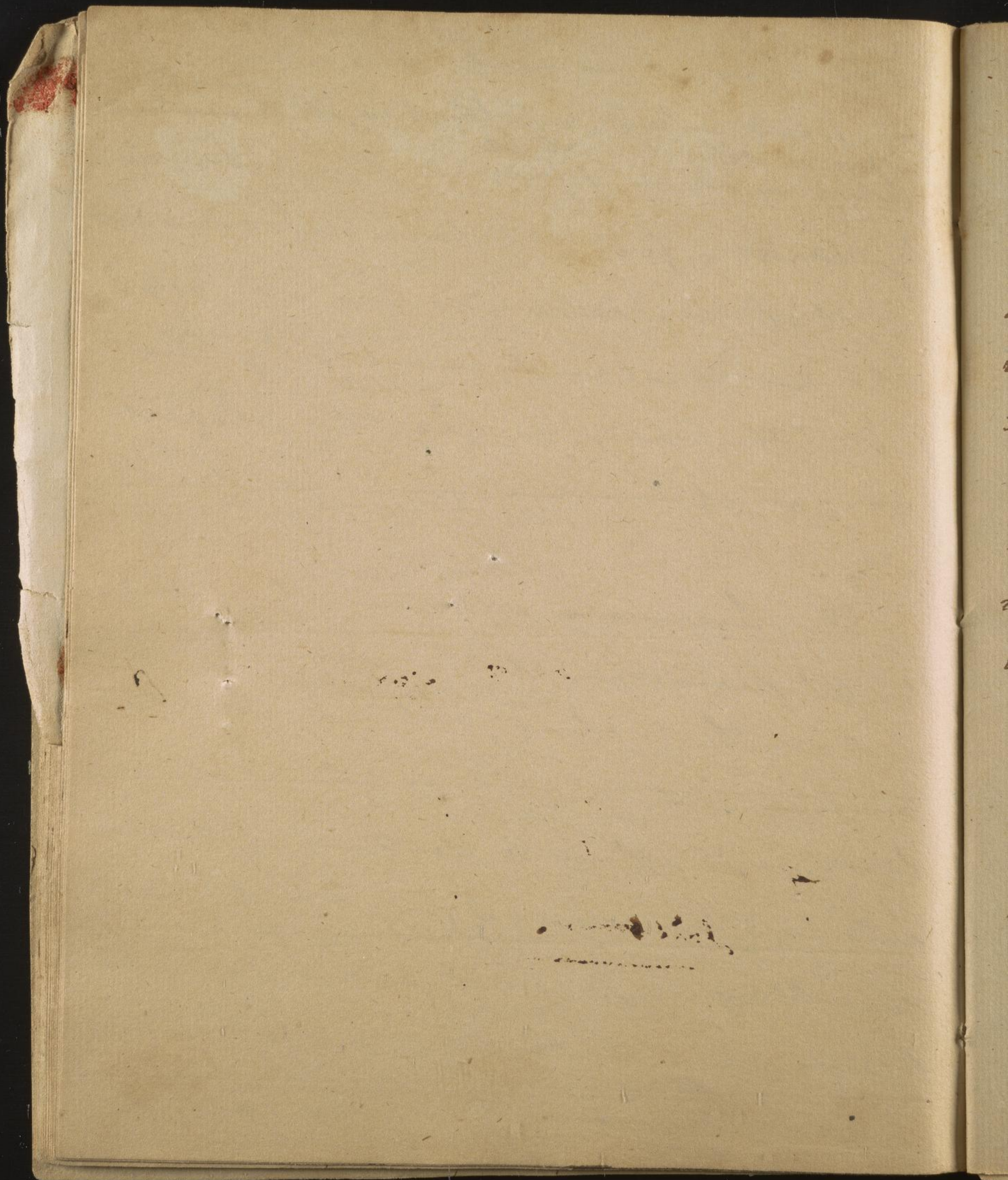


When formed resembles *aniasmata* in  
one particular, and that is, its <sup>formation</sup> ~~is either~~  
~~is prevented~~ <sup>it be</sup> ~~not formed~~, or if formed, it is destroyed

by water - for Mr Volney informs us  
that the water carriers at Cairo  
who are constantly washed by the  
water they carry, escape the plague  
when it is most epidemic in that  
city. <sup>v</sup> —

The ~~human~~ effluvia which produce  
the plague resemble the effluvia which  
produce the typhus, <sup>miliar or jail fever,</sup> not only in its  
origin, but in many other particu-  
lars. — 1 It adheres to clothing of all kinds  
and is often conveyed by it to distant  
countries. 2 It is not communicated  
to any great distance. 10,000 persons  
<sup>escaped</sup> it in London & in the year 1864, by







living on board of ships in the Thames.

3 It produces bubos and other eruptions on the skin.

4 It affects the faculties of the mind in the same way in persons who recover from it - particularly, the memory <sup>can leave the system</sup>

5 It is very apt to <sup>be</sup> disposed to relapses, from eating animal food - from sudden emotions - or from the gratification of the venereal appetite. — It differs from

it only in attaching <sup>more</sup> suddenly, & with symptoms of <sup>or of immense indirect</sup> ~~violent~~ action, <sup>this</sup> debility.

Action is ~~sometimes~~ of an inflamed

nature, and is <sup>sometimes</sup> accompanied with discoloured blood. 2 It ~~proves fatal in~~ <sup>proves fatal in</sup> a shorter time

than the <sup>jaundice</sup> ~~typhus~~. It kills, frequently in on the 3 and 5<sup>th</sup> days - and sometimes

it extinguishes life as suddenly as lightning. In this



v The jail fever is to the plague, w  
the bilious, is the yellow fever.



case the contagion acts by inducing in-  
 direct debility as to <sup>prostrates</sup> ~~the~~ system below  
 the point of <sup>reaction</sup> ~~life~~ — 3 It is more general  
 and affects a greater number of people  
 than the typhus or nervous fever.

Both these ~~two fevers~~ appear to be  
 different <sup>grades of one fever</sup> ~~grades of one fever~~ disease.  
~~as certain species of the same genus~~  
~~just as high as typhus or yellow fever~~  
~~perhaps varieties of the same species~~

difference between them seems to depend  
 chiefly upon the difference of customs &  
 manners between the inhabitants of  
 Turkey and Egypt and the inhabitants  
 of Great Britain & the United States of  
 America, for the <sup>Jail fever</sup> ~~typhus~~ according to Mr.  
 Howard is known only in the two  
 latter countries. In no Jail in Europe  
 however dirty or crowded except in Great  
 Britain did he find a single instance of



V It is remarkable that the Plague  
has seldom been in Europe in the  
present century. In France only  
in 1720 & in England never, since the  
year 1665. - ~~Formerly~~ Before this time  
it <sup>twice</sup> occurred ~~at intervals~~ every year for

It proves by the bye that the blood is  
not affected primarily - but the bile.

ten years together in Eng? - In  
these cases it was always ascribed  
to ~~super~~ importation, - but this  
was not true, - it was most pro-  
-bably generated in all the large ci-  
-ties of Europe. The different man-  
-ner of building, <sup>the greater degrees of cleanliness</sup> & the greater  
consumption of vegetables from the  
increase of horticulture & agricul-  
-ture <sup>& dieting</sup> by altering the perspirations,  
renders it less apt to produce malig-  
-nant fevers. <sup>like</sup> Dysentery is



106

~~The~~ jail or hospital fever. <sup>produced secondarily</sup>  
[The 3<sup>rd</sup> species of fever from human  
effluvia is the yellow fever. ~~This disease~~ <sup>I before</sup>

explained the origin of this disease.  
It produces <sup>great</sup> ~~vigorous~~ excess of action in  
the arterial system, ~~and a strong septicaemia~~  
~~transpiring in the fluids~~. But its most re-  
markable feature is affecting the  
liver with <sup>pain &</sup> inflammation, and promoting  
a plentiful and morbid secretion and  
excretion of Bile. In this - it discovers  
its <sup>original</sup> muddy or masby extraction - for  
Marsh miasmata I said formerly have  
a peculiar affinity disposition to <sup>act</sup> ~~reside~~  
<sup>upon the liver</sup> ~~within the liver~~ and the liver. <sup>It belongs</sup>  
~~to this form~~ I wish it would be clearly  
established whether this fever was



from human miasma mater.

✓ The yellow fever is said to be a native  
of the West Indies only. This is as erroneous  
as that the plague, is generated only  
in the Eastern Countries. The <sup>true</sup> yellow  
fever was known in Greece & is described  
by Hippocrates. It prevails occasionally  
at Minorca according to Dr. Elghorn, & at  
Cadix according to Dr. Lind. It ~~was~~ <sup>is</sup> ~~has been~~  
generated in ~~these~~ All the Southern states,  
& ~~where~~ Altho' it has been said, to have  
been imported into Charleston - Philad<sup>a</sup> -  
& New York, yet I have no doubt now  
but it was in most cases generated in  
each of those places. I -

✓ ~~The Influenza is probably a light  
degree of Jail fever, affecting the lungs  
chiefly. It is certainly of animal  
origin & a fever from a miasma~~



conveyed from time to time to the conti-  
-nent of America - from <sup>the</sup> West Indians or  
from <sup>the</sup> Americans only. If from the  
latter - it will give us a new fact upon the  
connection of  
Subject of human miasmata with the  
manners & customs or rather idiosyncrasy  
of particular countries.]

Thus have I pointed out all <sup>the</sup> ~~the~~ <sup>the diseases</sup> ~~only~~  
~~the~~ fevers which appear to be engendered  
by <sup>animal & particularly</sup> ~~human~~ miasmata. They may be  
distinguished from the ~~fevers~~ <sup>fevers</sup> which  
are produced by marsh miasmata 1<sup>st</sup> by  
prevailing at all seasons - 2<sup>nd</sup> by not being  
attended with remissions or a discharge  
of bile. 3<sup>rd</sup> by ~~only one~~ <sup>more moderate</sup> state of action in  
the vessels, and 4<sup>th</sup> by being ~~contagious~~ <sup>more easily</sup>  
propagated by excretion. 5<sup>th</sup> by ~~the~~ <sup>a</sup> knowledge  
of the remote causes. The fevers from  
marsh miasmata are known by  
duration, being often from 20 to 30 days.



105.1  
+ 7 affecting the robust more than weakly people  
I have only to add to this subject

that the ~~more~~ human miasmata  
sometimes act upon the body  
at a time while it is impregnated  
with miasmata, and thus  
produce a fever with a yellow skin  
and several other bilious symptoms.  
Dzengoroc, & Lamyriene latterly,  
describe a fever of this kind. Sailors  
who arrive in India by ships in the  
West Indies are often affected with it.  
It is now & then propagated by  
the excretions, & from hence (as I  
shall say hereafter) has arisen the error  
of the contagion of the yellow fever in  
the West Indies. <sup>Do the plague.</sup> I said formerly +



occurring only in the Anterior: 2 By  
 remissions, and a discharge of bile -  
 3 By being attended with <sup>more morbid</sup> ~~two states of~~  
 Action in the Arterial system, ~~4 By~~  
 vicinity, or exposure to its remote cause.  
 5 By being checked by cold & acids. +  
 [The yellow fever is distinguished from  
 both, by the greater violence of its symptoms  
 an occasional yellow by faintness -  
 - by the color of the skin - by a peculiar  
 pulse - full - slow - creeping - intermitting &  
 sensibility in the region of the ~~stomach~~ <sup>color of eye</sup>  
 & flattened - by a peculiar cast of countenance - ~~color of eye~~  
 liver which ~~resides in the lightest touch~~  
 & by great determination to the brain ~~by an~~  
~~of the blood on those parts, & a full~~  
 Discharge of black bile upward & downward -  
 according to Dr. Horace of America by an  
 & by ~~hemorrhages~~ <sup>hemorrhages</sup> from every part of  
~~eruptions of pimples on the stomach &~~  
~~the body, where it has not been~~  
 used: For the marks of the plague I refer  
 you to authors. It has never yet been  
 known in America. - N  
~~was found it to be a third time~~



of Jails, Ships & Churches is generally  
from human mismanagement.

It is of great consequence to  
distinguish the fevers from these  
two sources of ~~dead~~ miasmata that  
have been mentioned, not only because  
they require different methods of cure,  
but different ~~ways~~ means to prevent  
them. The bilious fever is to be prevented  
by removing the exhalations of dead  
veg & animal matters - but the  
Jail fever which is the offspring of  
morbid living bodies can only be  
prevented by Domestic Cleanliness,  
- free air - and ~~and~~ obviating all  
its other remote causes. Again the  
bilious fever cannot be imported. the  
Jail fever can, & often spreads afterwards



211 we should now to/og mention a 3<sup>rd</sup> source  
of diseases from a mixture of unwhol-

some matters with the air. This is the  
air rendered unfit for

3 ~~phlogisticated air~~ & ~~together discharged~~  
respiration by being breathed  
by the breath or from fires, or from

either both of them. You have all read

of the melancholly case<sup>2</sup> of the death of

a number of Englishmen who were

confined together in a room called the

black hole at Calcutta. Dr Hales relates

an account of 3 persons <sup>out</sup> of 4 perishing

with a fever who seated themselves near

a hole in the ceiling of the house of

Commons for the sake of taking notes

of a private debate. The sickness <sup>ch</sup> is

contrasted by children in crowded

Schools is probably derived only

from the phlogistication of the air.



this whole cities & Countries. ~~The~~  
~~the~~ Quarantine laws can operate  
only against the latter disease. They  
are unavailing against the bilious  
or yellow fever. - The name of plague  
has been indiscriminately given to  
the fever from both the causes we  
have mentioned. ~~The~~ But they  
are easily distinguished, & chiefly from  
their different causes. Mr Webster  
calls the fever from dead miasmata  
the bilious plague, & the fever from  
human miasmata the ingrinal  
plague. But these names do not suffi-  
ciently designate them. <sup>for</sup> In the worst  
cases of yellow fever, no bile is secreted,  
or excreted owing to the prostration, or  
want of excitement in the liver, nor  
do inguinal or glandular swellings



But this air produces other diseases besides fevers. I know a lady who can not go into a crowded room to pay an afternoon's visit, without being seized with a quiddiness in the head, and I knew a gentleman <sup>who is</sup> subject to the gout who used to feel in the same circumstances a distressing pain in his rectum. The Epilepsy usually attacks in a crowd - hence its name of morbus convulsivus.

The <sup>impure</sup> ~~phlogistic~~ air is probably the exciting cause of the <sup>fits</sup> ~~fits~~ in such situations.

Diseases of the lungs are always more or less increased by this air. It is more unhealthy at night, than in the day time owing to its mixture.



belong exclusively to the plague from  
~~human miasma~~ miasma, for we see them  
in the yellow fever. ~~I even in the~~  
~~fact I am at a loss for~~ <sup>appropriate</sup> names  
for them. ~~Perhaps they had better retain~~  
They had better be designated from their  
causes, than their symptoms - for their  
causes are uniform, except now & then  
both causes in the production of  
fever. This is taken notice by Pringle,  
Mourice, Chisholm & Lampson, in  
which case the fever is said to be ~~more~~  
contagious.

<sup>(Egypt in Cairo)</sup>  
The plague in Egypt is chiefly from the  
~~putrid~~ exhalations <sup>of the Nile</sup> - The plagues of Syria,  
& Constantinople, are from human mias-  
ma.

It is <sup>still</sup> more unhealthy if persons who are  
thus confined labour or exercise, than if  
they sit still.



with the burnt air of candles. The  
4 Air which is discharged from <sup>lime, charcoal,</sup> ~~combustion~~  
<sup>of fermenting bodies</sup> that is the Carbonic gas,  
~~meaning bodies particularly charcoal is~~  
of a most unwholesome quality. It fre-  
quently produces giddiness - head ach -  
sickness - and sudden death.

5 The air is rendered unwholesome by being  
mixed with the 4 which is discharged  
from fossil coal during its inflam<sup>n</sup> in  
all large towns. It acts chiefly on the  
lungs. A stranger from a country where  
wood is used for fuel, seldom fails of being  
seized with a cough as soon as he  
enters the cities of London or Edin<sup>g</sup>.

Dr Ramsay informed me <sup>that</sup> Dr Gairdner  
<sup>had</sup> informed him that the citizens of  
Charleston ~~once~~ once undertook to



✓ The smell of  $\Delta$  has been tho't to  
dispose men to vice - and to this  
Bydome ascribes the peculiar with-  
-drawals of the inhabitants of the high-  
-land of the volcano near Naples.

7 Certain odors in the air often induce  
Disease. The smells of roses & violets have  
sometimes destroyed life. Desiridit mentions  
that the odor from Naples nearly killed  
a number of boys at Jura. They were  
saved by large quantities of wine.



burn coal in their houses instead of wood, and that he never knew so many Coughs in that town as he did during the winter in which it was  $\frac{1}{2}$  fashion to burn this coal.

6 The effluvia of certain manufactures contribute to contaminate the air - particularly all those manufactures which volatilize, and diffuse thro' the air - the fumes of lead - sulphur<sup>v</sup> - or Arsenic -

7 The matter which is discharged by plants in the night<sup>v</sup> probably contributes very much to render the Night Air unwholesome.

8 But these are not all the sources of impurity and disease in the air. In



v It is obviated likewise by high walls,  
& by heavy showers of rain.



the Eastern countries the air is often  
combined with ~~of~~ a matter which  
renders it suddenly fatal if taken  
into the lungs. It is avoided only by  
falling on the face, and lying there  
till the air <sup>th</sup> impregnated in the prisons  
- one effluvia has passed over. It is  
called Haze-mattan in some countries.  
Bore calls it the Sarnoon. These  
winds which ~~can~~ brings this deadly  
air along with it, ~~Drop in forenoon~~ blows over large  
beds of bitumens which abound <sup>th</sup>.  
the vitriolic acid, - It is the decomposi-  
-tion of these bituminous substances  
by the intense heat of the sun, and  
<sup>the Sulphurous</sup> acid in a volat.  
~~the extrication of a Vol: vit. Acid~~  
state which is extricated by this heat  
which is probably the matter ~~that~~



V Persons who perish from the  
Action of this Wind putrify in a  
few hours. No putrid ferment is  
here introduced into the body, for this  
Vol Acid is probably of antiseptic  
nature. I shall hereafter  
acc<sup>2</sup> for the putrid smell in animal  
bodies in fish & soon after death,  
upon other principles, than a change  
of properties from putrefaction

The Syroco Wind is common at  
Aleppo, and in some parts of  
Italy. It is common Air heated  
by passing over a sandy country.  
It produces faintness & languor &c,



produces the Lamoon. [This idea  
was first suggested to me by Dr. Rees  
who informed me that he had ment.  
it to Dr. Priestly who was much pleased  
with it. ~~It is observed~~

~~Although~~  
~~Dr. Rees~~ Mr. Bruce mentions another  
species of malarious air, which tho' it  
proved deadly only to brute animals  
deserves to be mentioned in this place.  
He tells us that <sup>in several miles around</sup> at Linnear a town  
on the hill which lies in the lat. of  
 $13^{\circ} 34' 36''$  N. and  $30^{\circ} 30' 30''$  East from  
Greenwich, the ~~country~~ earth emits  
an air which is deadly to all animals  
except man probably because he  
is not obliged to stoop to it to receive  
his nourishment. Mr. Bruce lost



but no violent disease.

Oxygen, or pure dephlog<sup>d</sup> air  
often <sup>super</sup>abounds in the atmosphere,  
producing by its stimulus a  
predisposition to inflame<sup>d</sup> diseases,  
or an inflame<sup>d</sup> Constitution of  
the air. It is exhaled from plants,  
Rivers & the Ocean. It does not  
change the sensible qualities of  
the air. Persons from the seashore  
& the Country who were affected w<sup>th</sup>  
the yellow fever <sup>in the</sup> ~~last~~ summer 1794  
had it worse than other people,  
owing to their bringing bodies into  
the city unusually impregnated  
with oxygen. Hippocrates long  
ago described this inflame<sup>d</sup> Consti-  
tution of the air. He calls it "tothion".



two grey hounds, & all his mules a  
 few weeks after he arrived at this town.  
 They die without discovering any other <sup>cause</sup> ~~disease~~.  
 The unwholesomeness of the air is con-  
 fined only to the rainy season, and  
 as soon as it comes on, the inhabi-  
 tants save their cattle &c by sending  
 them to some distance from the town.  
 - No tree or flower except the lemon  
 flower grows <sup>in</sup> it, but rice - wheat &  
 millet thrive there, for the soil is  
 uncommonly rich & fruitful.  
 It is never overflowed by the river.  
 The earth when lacerated affords a  
 good deal of salt. In walking over  
 some earth of this kind elsewhere  
 Mr Bruce tells us he found prickling



Hydenham observed it - described it -  
flamanted it - <sup>He</sup> ascribed it to a  
mineral exhalation from the bowels  
of the ~~earth~~. It exists from 1 to 50 years +

near Scioto Settlement there is a  
piece of ground which proves fatal  
to deer. It killed two of Mr. Sigsbee's  
puppies - supposed to be owing to fixed air.  
It was  
no. 10 p. 116

[+ see Lin's acc<sup>t</sup> of it, also Dr. Thury's]

10 ~~He~~ a vapor is sometimes emitted from the  
earth when torn by an earthquake which  
mixes with the air & produces diseases. This  
was remarkably the case after the earthquake  
on the 7th of June  
in 1692 in Jamaica. The Vapor in this case had a  
most offensive smell. 3000 persons died of a fever  
produced by it a few months afterwards.

11 ~~He~~ a vapor is said to be emitted at certain  
times from springs which contaminate the  
air. This was the case in one of the plagues at  
Vienna - it had a bad smell. D<sup>o</sup> in France.

~~He~~ - p. 116 ©



pains in his legs. — Is this Air  
~~inflammable~~ — or ~~mephitic~~ — ? It  
 is ~~probably~~ what can be the nature of  
 this Air? — I should suppose it to be  
 of the fixed or mephitic kind, <sup>where it</sup> ~~is~~ it  
 is so fatal to ~~travellers~~ <sup>flowers</sup> — for  
 they ~~probably~~ <sup>the excess of</sup> ~~flourish~~ <sup>from</sup> ~~according to~~ <sup>the excess of</sup>  
~~this kind of Air~~ <sup>stimulus</sup> — mephitic Air at grotto  
 of <sup>delaney</sup> — often ~~does~~ <sup>is</sup> fatal in <sup>all cases</sup> ~~all cases~~ <sup>& of mephitic</sup>

// we now next to speak of <sup>influence</sup> ~~influence~~  
 of particular situations in producing dis-  
 eases. — Lect: is — Feb: 13. 1792

These are diversified by <sup>country</sup> ~~town~~ & town-  
<sup>near</sup>  
 by ~~vicious~~ soil — by vicinity to mountains  
<sup>deserts</sup>  
 marshes — mill ponds — and seashore also  
 by a change of Situation from some of the  
 Above places to Others — of each of which  
 in Order. —

1 The country is more or less favorable



V In this case it is necessary, there should  
be no opening for the ~~best~~ rays of  
the Rays of the sun at any time of  
the day. A proof of their sad effects upon  
health & life in a word is contained in a letter  
from Dr. Croodie of the British Army in the  
East Indies to Mr. White as respectable Apo-  
thecary at Bath. He says: 1500 Soldiers en-  
camped at Hinzura in August 1801 in  
a Valley covered with lofty trees. No exhalation  
took place in it except at midday  
when it was very great. After being there  
20 days <sup>they</sup> embarked, and soon afterwards 500  
of them died including a number of officers.  
Within 200 yards of the above forest, on a  
high & healthy situation, a Regt of Royal Artillery  
enjoyed good health. To return -



to health, according as it is more or less cleared or cultivated. A new country is always healthy. ~~Sickness~~ Death is in a frontier country is so rare a thing, & the effects of hundreds crowd to view ~~a corpse~~ <sup>the effects of</sup> it when it occurs, in a dead corpse. Even the ~~most~~ <sup>wettest</sup> ~~marshy~~ grounds are not unhealthy, if they are sheltered from the rays of the sun by large and numerous bodies of trees. In the Delaware State men often work at the business of making shingles for weeks together in the cedar swamps, without contracting the least indisposition.

The first act of clearing a country is the usual signal for the appearance



72

24



U

1

a



6





febrile  
of diseases provided the timber which  
is cut down opens a wet soil to the  
Action of the Sun, or opens a passage  
for <sup>marsh</sup> miasmata from a neighbouring  
river - creek - or mill pond. A  
country thus cleared or opened will  
remain richly for many years  
if improvements become stationary.  
- This is the case in <sup>Delaware</sup> Maryland - and  
in all the States beyond the Potomac,  
where large proportions in land under  
it impracticable for the cultivation  
to keep pace with the clearing of the  
country - and hence the richness of  
those States - But in the northern  
& middle states where cultivation  
[which consists in draining low



<sup>Different states & mixtures of</sup>  
✓ The diseases produced by the air in  
the country are chiefly Influenza - in-  
-termitting & bilious fevers - and the  
Dysentery. The languid state of the  
bowels induced by <sup>vapid drinks &</sup> a diet consisting  
chiefly of vegetables seems to <sup>predispose</sup> ~~produce~~  
country people more than the inhabi-  
-tants of cities to ~~the~~ the last of those  
cases.  
~~disturbances~~ -



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grounds - confining overflowing streams  
of water - and ~~losing~~ dissipating  
moisture in grain and grass. I say,  
where this cultivation succeeds the  
clearing of a country, it soon be-  
comes perfectly healthy. The state  
of Connecticut <sup>or 70 or 80</sup> years ago was  
as nearly as subject to bilious and  
intermitting fevers as the states of  
Delaware & Maryland, but they  
have both yielded to that general  
state of cultivation which has been  
introduced into that country, by the  
equal and small divisions of land-  
ed property ~~instead~~ which have taken  
place in that happy and enlightened  
state. V



✓ Hence the foundation of Mr Compton's  
remark that "God made the country, but  
man made cities." ~~so~~ They have, <sup>been</sup> in  
every age, the hotbeds of vice, disease, misery. My

✓ Man says Ruffian ~~is not~~ was not  
made to live in a crowd. Like ~~that~~ the  
human species sicken and destroy each  
other when <sup>too much</sup> confined, ~~as~~ this they  
do not only by producing vices but  
diseases of all kinds. — business at  
present is only to <sup>take notice of</sup> ~~point out~~ the effects of  
the impurity of the Atmosphere =



2 Towns and Cities are the graves of the  
human Species. — The first Account we  
have of a City is the book of Genesis. It  
was built by Cain — probably that  
he might destroy in a crowd the  
guilt <sup>for having</sup> he felt after he had shed  
the blood of his  
brother's blood. Cities in every

age and in every Country have served  
nearly the same purpose of extinguish-  
ing all moral feeling & reflection. But

But in another place I shall point out  
the influence of the <sup>follicles & passions which</sup> ~~vices of cities~~  
are cherished in cities upon human life. At present I am

<sup>I shall take notice</sup>  
confined only to the impurity of the  
atmosphere  
arising from the number of persons  
breathing the same air — from the  
unwholesome exhalations of dirty



✓ and from the greater heat of cities  
occasioned by the ~~confinement of hot~~  
~~air~~ and the reflection of the sun's rays  
from <sup>pavements &</sup> the walls of houses, & the subse-  
quent confinement of the hot air.

But these are not the only sources of  
the unhealthiness of cities. The <sup>animals</sup> ~~cattle~~  
<sup>vegetables</sup> upon which the inhabitants of cities feed,  
being fed by manure are less more  
disposed to put on a putrid disposition  
than animals & vegetables raised in a  
natural soil & at a distance from cities.  
Lastly the water in cities from the filth  
of streets & gutters & privies commixed into  
it is less healthy than river water or  
water where these mixtures do not  
take place. In consequence of the op-  
eration of all these causes it has been  
stated by Dr Paine that in large cities  
turn over



Docks, yards & gardens - impure sewers  
streets & from the effluvia of the matters  
employed in various manufactures.

<sup>Cities</sup>  
~~These~~ are so fruitful a source of diseases &  
death, that ~~while~~ only 3 - or 20 ~~life~~

in an <sup>100</sup> die every year in the  
country, <sup>400</sup> five die in the same <sup>most cities</sup> ~~same~~ <sup>most cities</sup>.

but every year in a city. It is com-  
puted that ~~a man~~ <sup>Dr Price</sup> ~~supposes~~ that a man loses

a portion of his health or life who  
settles in London before he is 30 years

of his age - The system at that period  
it acquires a vigor which enables

it to resist the causes of diseases before  
mentioned. The diseases which <sup>are</sup> ~~are~~

produced by the air of a city are chiefly  
the <sup>biliousness</sup> ~~typhus~~ <sup>typhus</sup> ~~typhus~~ - consumptions -

some nervous affections. The Dysentery







is less common in cities, owing proba-  
 -bly to the general use of tea - coffee -  
 & wine. - ~~and animal food~~. While I  
 was a student at the ~~late~~ Jersey College  
 a Dysentery broke out among the  
 students. but it was very remarka-  
 -ble that not a single boy from  
 the cities of New York or Philad<sup>a</sup> was  
 affected with it. It was confined  
 only to the ~~late~~ young men who had  
 lived previously to <sup>their</sup> coming to college  
 upon <sup>a milk or vegetable diet</sup> ~~the country diet~~, before mentioned.

But further. The qualities of air are  
 influenced by other <sup>more minute</sup> circumstances, such  
 as <sup>the</sup> nature of the soil of both towns  
 & countries. A sandy soil by retaining  
 and reflecting more heat, disposes to



mountains are cooler than  
level ground, and those mountains  
which are covered with evergreens  
cooler than others. Frost appears  
earlier in the Antennine & later  
in the spring in the neighborhood  
of pines - Hemlock-firs &c than  
of in the neighborhood of any  
other forest trees. There are two ex-

-ceptions to the healthiness of higher  
elevations. <sup>burn over - the</sup> ~~At Calcutta~~ <sup>the</sup>  
~~the~~ <sup>in the former place, the</sup>  
Dr Dominguez. The latter related by Dr  
H. Miller - Fumes prevail on  
the heights & health below, -

What cause? Intercepted miasmata  
as fumes do haze in Syria. &c.



all the diseases of hot weather, and particularly to the diseases of the eyes.

4 A situation in a mountainous country is always less unhealthy than in a low country - and hence the <sup>finest</sup> ~~greatest~~ number of long lived people are to be found in the mountains of Switzerland of any country in Europe. ~~The diseases~~

5 The vicinity of a town or country to marshy ground <sup>there</sup> ~~exposes it~~ every year to bilious & intermitting fevers. It is necessary that the winds which blow upon these situations should pass over the ~~the~~ ground which shades the mountains, and it is remarkable that they produce fevers more certainly if these winds are combined with



# British soldiers who occupy the heights  
in the neighbourhood of the city <sup>of Calcutta</sup> are always  
more sickly, than the soldiers who <sup>are</sup>  
quartered in the Vallies below them, &  
hence they often exchange situations.

Dr Hect. Miller mentions a similar  
fact at St Domingo of the greater un-  
-healthiness of a high & mountainous  
situation, than of a situation below  
it. How shall we account for this?  
Do the mountains arrest & detain the  
exhalations from the Vallies? ~~Yes~~  
- mountains often <sup>thus arrest</sup> ~~do this~~ with clouds  
of rain - more especially when they  
are covered with lofty trees. Mr Volney  
mentions a curious fact of a hill in which  
~~fact of a mountain~~ in Syria after an  
~~extensive~~ pine which scarcely any  
rain ever fell, but which was plentifully  
watered upon covering it with a number  
of stately pine trees. The only healthy spots  
in Corsica - are mountains



moderate rains. [It is difficult to de-

termine how far animata may  
be carried by the winds <sup>from 9 miles from Hampshire</sup> and I ~~have heard~~  
<sup>Dr. Bozhuani says 20. miles</sup>

~~10 miles - but~~ I can only say that  
~~long since saying~~ I think I have heard of their being  
I have ~~heard~~ <sup>conveyed</sup> ~~over~~  
miles from the shores of the Riquehannel.  
ten. This has been ~~ascertained~~ over

~~the banks of the Riquehannel.~~

The  
passage of these animata may  
easily be checked by ~~trees~~ or a copse of  
trees ~~between~~ <sup>to</sup> left or planted later in  
the direction of the wind after it has  
passed over the marshy ground. ~~There~~  
is remarkable that the animata  
from the tract called the Reck below  
our city seldom produced a bilious  
fever beyond South Street for many  
years, and the ~~former~~ Breckbone



Viz: Vivacio & Vitavona. Richly people  
moves by going there. Whence live.

V ~~Old~~ people seldom suffer from  
living in the vicinity of marsh  
exhalations. On the contrary, they  
often die soon after they are removed  
from this action. The miasmata  
here become an essential stimulus  
of life. †

V ~~Planting~~ Planting trees around mill  
ponds so as to prevent the rays  
of the sun acting upon the shores  
of the ponds, effectually prevents  
this producing Intermittent, or  
bilious fevers by exhalation.



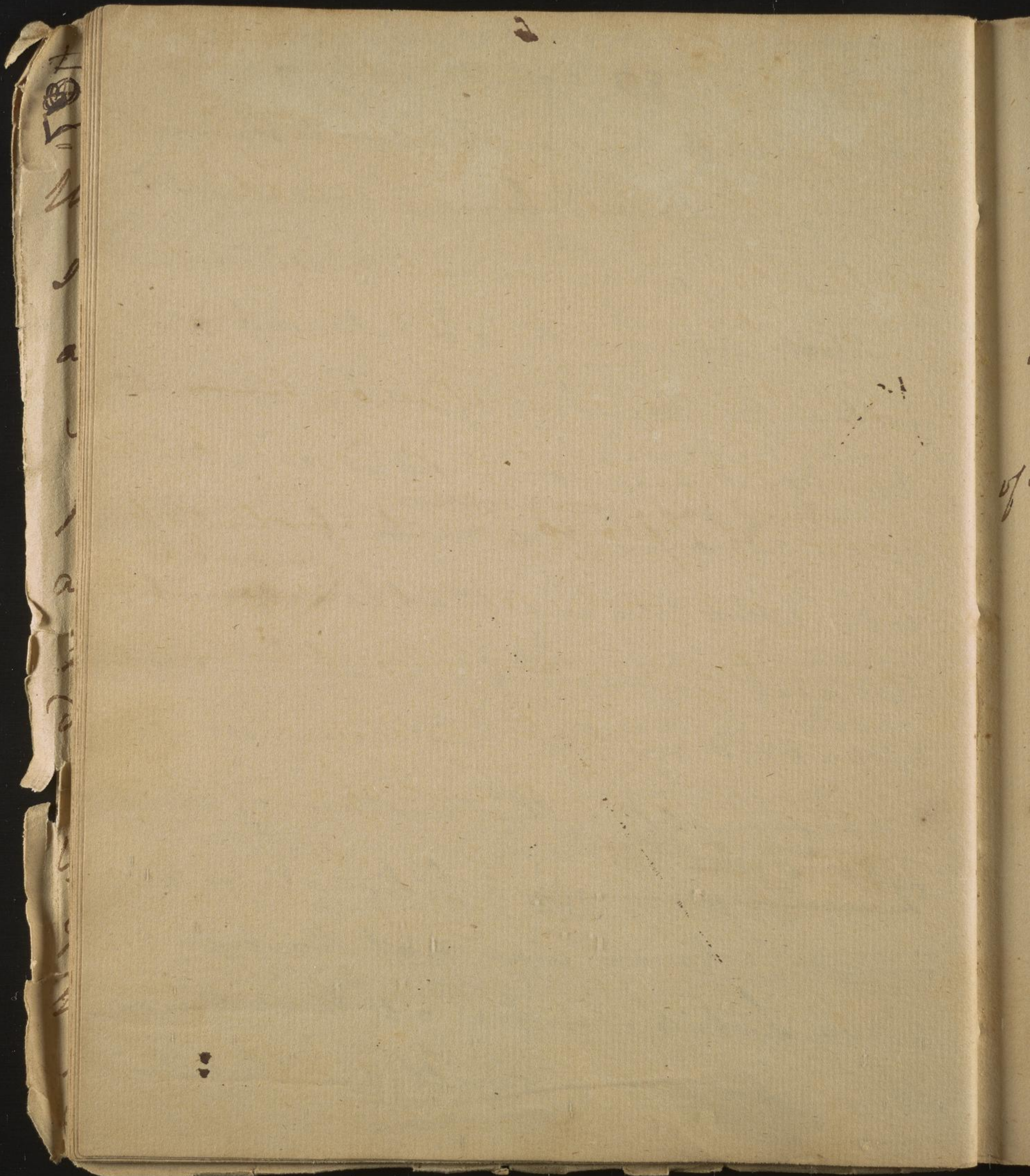
fever in 1780 affected only one or two streets near the water, and never extended beyond market street in a northern direction.

~~Still~~ Intermitting & bilious fevers follow the damming of water in mill ponds. I once conversed <sup>with</sup> an old man <sup>when I was a young man</sup> who lived 10 miles from the city, who told me that he <sup>remembered</sup> the first intermitting fever which ever appeared in his neighbourhood. It was soon after the erection of a mill.

In 1780. I ~~file~~ <sup>file</sup> ~~1802~~ <sup>1803</sup>

~~Twenty years ago~~ a bilious & intermitting fever was not known in Nova Scotia — for at that time there was not a mill in that province. — V



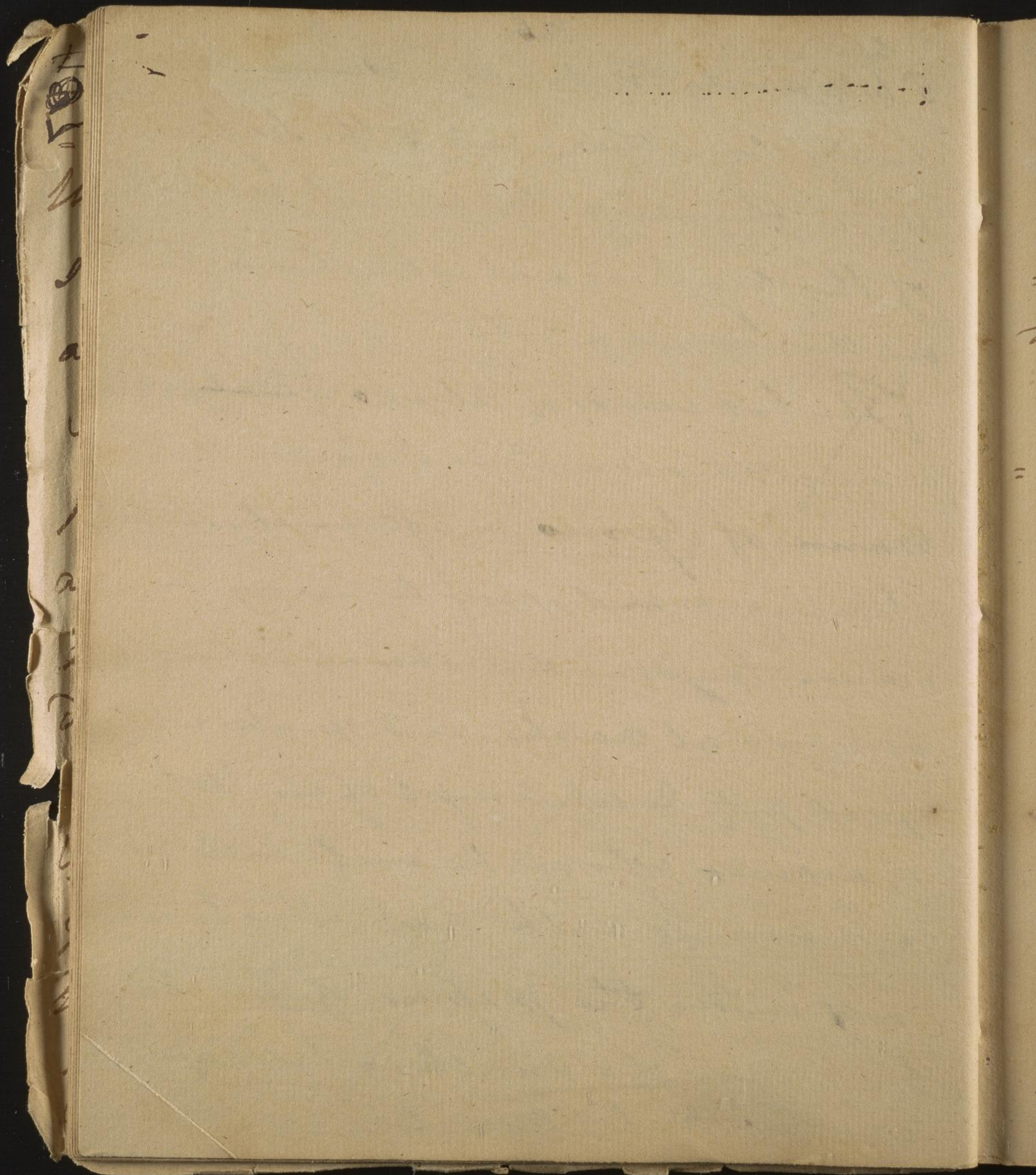




by  
 6<sup>th</sup> vicinity to deserts - cleared - or  
 woody countries - and to the Seashore  
 by influencing the sensible qualities  
 of the air has an extensive influence  
 on the human body. —

~~The hot winds of Aleppo - Italy &  
 of many other countries, known by the  
 name of Sirocco is extremely debili-  
 -tating, & ~~for~~ disposes to many dis-  
 -eases. Brydone describes it as having  
 occurred at Naples, and speaks with  
 great pity & contempt of an Italian  
 Marquis whom he met with in  
 a morning walk supporting him-  
 -self under the pressure of this air  
 by means of a smelling bottle. It  
 appears to be pure air heated~~







by passing over immense beds of sand.

The vicinity of a town or country to  
 cleared or woody countries greatly al-  
 ters the temperature of the air, and  
 thereby changes the nature of such dis-  
 -cuses as depend on its sensible qual-  
 -ities. Italy has become temperate by  
 the <sup>clearing &</sup> cultivation of Hungary & Germany,  
 and the ~~the~~ United States of America  
 will probably become <sup>much</sup> ~~more~~ less cold  
 when the rays of sun are permitted  
 to act upon that extensive region  
 which lies to the <sup>North</sup> west of them on the  
 lakes and in Canada. —

The air on the sea shore is of a peculiar  
 quality. It while the air at a small  
 distance from the shore both on the



✓ also of salt and fresh water. see Alex<sup>d</sup> de



land & sea is perfectly healthy, that  
 on the shore is unfriendly to the body,  
 and in certain diseases - such as the  
 Asthma - ~~the~~ pulmonary Consumption  
 & Rheumatism -  
 of this there <sup>are</sup> many proofs. - It would  
 seem as if a Collision or mixture of  
 Airs was ~~unhealthy~~ <sup>not</sup> unhealthy in  
 other cases as well as the one that has  
 been named. I never sickened or perished  
 in the most offensive hospital I ever  
 visited during the late War - and yet  
 I have done both as soon as I have  
 come out of the hospital & breathed  
 the pure Air. It is hard to tell on w:  
 the unwholesome quality of the Air on  
 the Seashore depends. ~~It cannot~~ <sup>It cannot</sup> it be  
 moisture & saline nature of the Sea Air?  
 But these do not act at Sea at



~~V mentioned in this place.~~



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a distance from the shore. But may  
not this owing to the motion of the  
ships imparting a vigor to the system  
which counteracts the morbid operation  
of the sea air on the shore? If the  
unhealthy quality of the air on the  
seashore does not depend on its saline  
nature - it must be ascribed to its  
mixture with land air, and a new  
compound being formed from it of  
which I can say nothing. I have only  
to add to this head - that the air on  
the seashore is medicinal for all the  
diseases of the body except those I have  
mentioned - viz: Asthma - Consump<sup>n</sup>  
& Rheumatism.

There are several other local  
circumstances, <sup>of affect the air</sup> which deserve to be



It is often the source of Disease, and that  
from the following cause. 1. From its  
being built of green or unseasoned wood.  
The Saps <sup>which</sup> is confined within new boards,  
is composed sometimes of Saccharine, &  
often of fermentable matters, & by heat  
is so changed as to become a source of  
Disease. I ~~took~~ <sup>have taken</sup> notice of this fact in  
speaking of the origin of bilious fevers  
from new ships & soldiers huts, <sup>in the 4<sup>th</sup> Vol. of my</sup> It is  
<sup>best inquiries</sup> only to be prevented by soaking the wood  
or boards in water so as to dislodge the  
Sap from them by means of the  
water, which soon evaporates from them,  
but if retained, is <sup>much less</sup> ~~not~~ disposed to the  
fermentation with the wood. 2. A dwelling  
house is rendered unhealthy by being built  
of stone recently taken out of the ground,  
& in that state impregnated with matters  
of a vegetable or mineral nature which  
undergo such changes by the action of



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mentioned in this place: A Residence  
in cellars  
under ground is always unhealthy.

Even the servants who spend the day  
only in kitchens soon acquire a  
pale color, and are much disposed  
to Consumption & Rheumatism. —  
A residence in a hospital has the same effect. —  
it is said

2 A house <sup>drinking</sup> ~~very~~ <sup>✓</sup> ~~plaster~~ <sup>✓</sup> ~~after~~  
produces the same diseases. They have  
been ascribed to the filth of lime,  
but I should rather suppose they were  
occasioned by the moisture which cleaves  
to the lime. ✓ I have known head of one

~~case of sickness from it.~~  
A house so surrounded in trees  
3 There is sometimes an unhealthy  
that the  
in ~~contaminated~~ air cannot act upon every  
part of them at some time of the  
day is generally unhealthy. Of this  
I have known several instances.  
The diseases produced in this way,



Atmosphere on it as to emit an unwhol-  
some Vapor. These two sources of disease  
in a newly built house were so universally  
admitted in Ancient Rome, that a house was  
never inhabited by <sup>the</sup> wealthy Citizens till  
after it had built one year. 3<sup>rd</sup> A house  
is rendered unwholesome <sup>it is</sup> by the moisture, and perhaps  
by the ~~heat~~ by an unwholesome Vapor  
emitted by fresh plaster. A physician of  
a promising Character Dr Brown died of a  
Consumption in this city contracted from  
going into a newly plastered house. 4<sup>th</sup> By living in <sup>inhabiting</sup> two years after  
being painted. Headache &c from this cause! 5<sup>th</sup> A  
house is a source of disease from its  
having a close cellar, connected by a stair  
case with the chambers of the house. The  
speedy putrefaction of meat, the green mould  
on bread, the speedy rust on iron kitchen  
utensils, ~~and the hot & offensive smell~~  
~~engifted by green wood when kept in them~~  
~~ascend into the living little kitchen~~ all  
indicate the unwholesome quality of  
the Air in Kitchen Cellars. From which



have been ascribed to the <sup>night</sup> effluvia  
 of the trees, not being fanned off  
 in the day time. But perhaps the  
 dampness of the air may be suffi-  
 -cient <sup>alone</sup> to account for them.

4 There is sometimes an unhealthy-  
 ness in the situation of a house,  
 both in towns & country wholly  
 unconnected with any of the cir-  
 -cumstances which have been  
 mentioned. I once knew two <sup>cases of</sup> ~~cases~~  
 malignant <sup>fever</sup> which proved fatal  
 in this city in the middle  
 of winter in a small court <sup>between front & rear</sup> in <sup>Wald Street</sup>,  
 houses that nearly adjoined each other.  
 probably from some filth contained in the cellar of  
 one of them. I suspected they were produced by some  
 local effluvia, but I never was  
 able to satisfy myself of the source



<sup>3</sup>  
V a fact of a more singular nature, but  
connected with our subject is related by Vass:  
-Lvieters. In the year 1713 a fever affected  
all the Professors - Students & printers of the  
University of Altdorf <sup>in Franconia</sup> without affecting any  
one of the inhabitants of the city. These students  
lived in different parts of the city & used the  
same diet with the citizens. The <sup>diseases in</sup> fever  
was probably produced by a local exhalation  
from a privy - a foul cellar, or rototten  
vegetables near the University. In all these cases,  
<sup>patients should be advised to change their habitations. p 134. in</sup>  
— stagnates in them. <sup>fact of green wood - few fruit</sup> It is to be prevented  
in part by Chimneys in a cellar w:  
promote motion & circulation in the  
air, or by having a communication kept  
up with them only by an external  
cellar door. <sup>Sometimes cellars are</sup>  
~~many times~~ rendered unhealthy by <sup>inhibiting &</sup> their retaining  
<sup>the degree of heat</sup> ~~discharge~~ water from the adjoining cloth.  
<sup>from this cause</sup> This may be avoided by a hole dug



from ~~whence it was derived~~. I  
 have observed something still more  
 unaccountable in our city. On the  
<sup>side</sup> west of Third Street between Market  
 & Arch Streets, ten or twelve heads of  
 families died in about eight or  
 nine years, while on the opposite  
<sup>side</sup> of the same street only two persons  
 died in the same number of years.

The deaths in the former case were  
 most of them with different diseases.  
 They originated <sup>in different cases</sup> I have no doubt in one  
~~cause~~ this uncommon mortality  
 or more of the causes ~~which~~ of which have been  
 accidental - or did it ~~it~~ depend  
 enumerated. ✓  
 on ~~some~~ some morbid effluvia or  
 dampness - or ~~current~~ <sup>of</sup> air which  
 affected one side of the street more  
 than another? ✓ In such cases it  
 is best to advise our patients to seek new Habitation  
 - ours.



to gravel in it, or a ditch dug around the  
house, and <sup>& below the cellar</sup> arched as to prevent the  
water's evaporating. & a house is rendered  
unhealthy from its age when it is made of  
wood, ~~then~~ for wood when it decays emits  
a vapor which has been known to  
produce an intermitting fever. This is  
taken notice by Dr Hatter. & By small,

of the influence of a Thunder, light, darkness,  
~~darkness~~, change of situation, sound,  
 light darkness, ~~change of position~~  
 of the ~~body~~ upon the body. <sup>earth</sup>  
 the ~~body~~ involutions of the ~~earth~~ <sup>moon</sup> & <sup>sun</sup>

close, and smoky rooms. To obviate  
smoke doors & windows are frequently  
opened by which means colds are taken  
which often terminate in pulmonary  
consumption. But ~~the~~ ~~most~~ houses  
are unhealthy from the want of ventilation.  
The fifth which produces disease is it is true  
not often seen in a parlour, or common  
sitting room. It is hid generally hid from  
the eye in a yard, a cellar - or closet, &  
the garret. Deane & Swift considered the <sup>secret</sup>



Thus have I pointed out all the  
 circumstances which are connected <sup>in</sup>  
 the <sup>situation</sup> air that produce diseases. I have  
 hitherto said nothing of specific con-  
 tagions which are conveyed thro'  
 the medium of the air into <sup>the</sup> human  
 body — I had allotted them to another  
 place, in our syllabus, but they  
 will come in more properly under  
 this head. <sup>go to p: 139 W4</sup> Before I proceed to treat  
 a few remarks on the influence of ~~light~~  
 on them, I shall present you with  
 a table of the medium duration of  
 human life in all the situations  
 which I have described in a northern  
 and middle climate. — It is  
 taken from Dr Daignan's tables of  
 human life.



~~Fifth is much a source of~~ It would be a  
good practice if the Inspectors of the ~~health~~ <sup>municipal</sup>  
of our cities ~~from~~ would, in their visits to  
houses, imitate the Conduct of Dr Swift  
who ~~after entering~~ <sup>after entering</sup> the parlour of his  
friend Mrs Pilkinton with whom he was  
invited to dine, refused to sit down; ~~before~~  
but suddenly walked up her stairs, & examined  
every room, & closet in her house. Upon  
returning into her parlour, he said "I per-  
ceive madam - you are a good house wife.  
I give you no credit for the neatness &  
cleanness of your parlour, in which you  
expected to see company - But I have  
found all your rooms & closets to be  
as neat & clean as your parlour." <sup>11<sup>th</sup></sup> Henry  
are ~~highly~~ <sup>highly</sup> healthy from sinks in cellars, ~~not properly~~  
constructed, & from ~~poor~~ <sup>poor</sup> drainage, ~~not properly~~ <sup>not properly</sup> closed chim-  
neys, ~~that have been~~ <sup>that have been</sup> ~~in winter & doors, &~~ <sup>in winter & doors, &</sup>  
10<sup>th</sup> ~~the~~ <sup>the</sup> ~~houses~~ <sup>houses</sup>, like villages are unhealthy  
from the unwholesome quality of the  
water that is used by them. Of this I  
have known a remarkable instance



Situation	northern <sup>134</sup>	middle latitudes.
mountainous	42 — to 44	40 — to 42
Hilly —	41 — to 43	39 — 41
vallies —	40 — 42	38 — 40
Floods —	40 — 42	40 — 42
mines and quarries	26 — 28	21 — 23
mount country	40 — 42	39 — 40
unequal D <sup>o</sup>	38 — 40	36 — 38
varied D <sup>o</sup>	35 — 37	34 — 36
Sandy D <sup>o</sup>	30 — 32	28 — 30
Gravelly D <sup>o</sup>	30 — 32	28 — 30
Stony D <sup>o</sup>	30 — 32	28 — 30
elevated D <sup>o</sup>	39 — 41	— 30 — 32
Islands	24 — 26	22 — 24
Flat country	27 — 29	30 — 32
low D <sup>o</sup>	30 — 32	30 — 32
naked D <sup>o</sup>	24 — 25	21 — 22
low D <sup>o</sup>	22 — 23	21 — 22
moist D <sup>o</sup>	21 — 23	23 — 24
marshy D <sup>o</sup>	25 — 26	— 21 — 22



+ These ~~are~~ observations, Gent.  
in this city. ~~only~~ ~~are~~ ~~mentioned~~  
~~are~~ are highly interesting  
These facts. They are of great importance  
to the lives of our patients, & to the reputation  
of a physician. Where a family  
is exclusively, & frequently affected with  
Sickness, some one of the causes that have  
been mentioned should always be suspected,  
& ~~mean~~ a strict inquiry should be made  
after them. Chronic diseases I believe are  
often brought on & continued by them.  
I shall relate three facts which are calculated  
to impress the remarks that have been made  
upon your memories. go to p: 131 O =

<sup>th</sup>  
+ ~~A~~ A house is sometimes rendered unhealthy  
by being too closely surrounded by trees. of  
this I have known several instances. The  
dangers produced by them is probably the cause  
of it in the spring & early part of summer,  
& perhaps by the ~~putrefaction~~ putrefaction  
of their leaves, in the latter part of summer,  
& in the beginning of autumn. ~~see above~~  
12. From great heat & cold. of both - a house  
to obviate the diseases from heat & cold



<u>Situation</u>	Northern	Middle latitudes
near & course of great rivers	40 - to 41	38 - to 40
near lakes	26 - to 26	29 - 30.
Bogs or swamps	25 - to 27	21 - 32
Sea coast -	25 - 26	25 - 26
Heaths	21 - 22	21 - 22
Brooms	21 - 22	21 - 22
Dry lands	21 - 22	21 - 22.

nothing has been said here of the  
medium of human life in cities,  
probably because the filtration of  
cities is affected by all the circum-  
stances which have been mentioned.

- Exclusive of exhalations from  
manufactures Dirty Streets &c they  
cities  
will be more or less healthy acor-  
-ding as they



in the Ustaks from front the South side.  
have be built low and as near the ground  
as possible in the country - they are thus  
coolest in summer, warmest in  
winter. ~~Large~~ room in <sup>a</sup> ~~very~~ house is  
cool according to its size. St Pauls church is  
always cooler by 8° than the smaller  
rooms of surrounding houses. The  
lower the windows, & doors of a house,  
the cooler in summer & the <sup>warmer</sup> ~~warmer~~ in  
winter. has back to = 10 : 135 - These

Observations &c



